

IC (Top View)

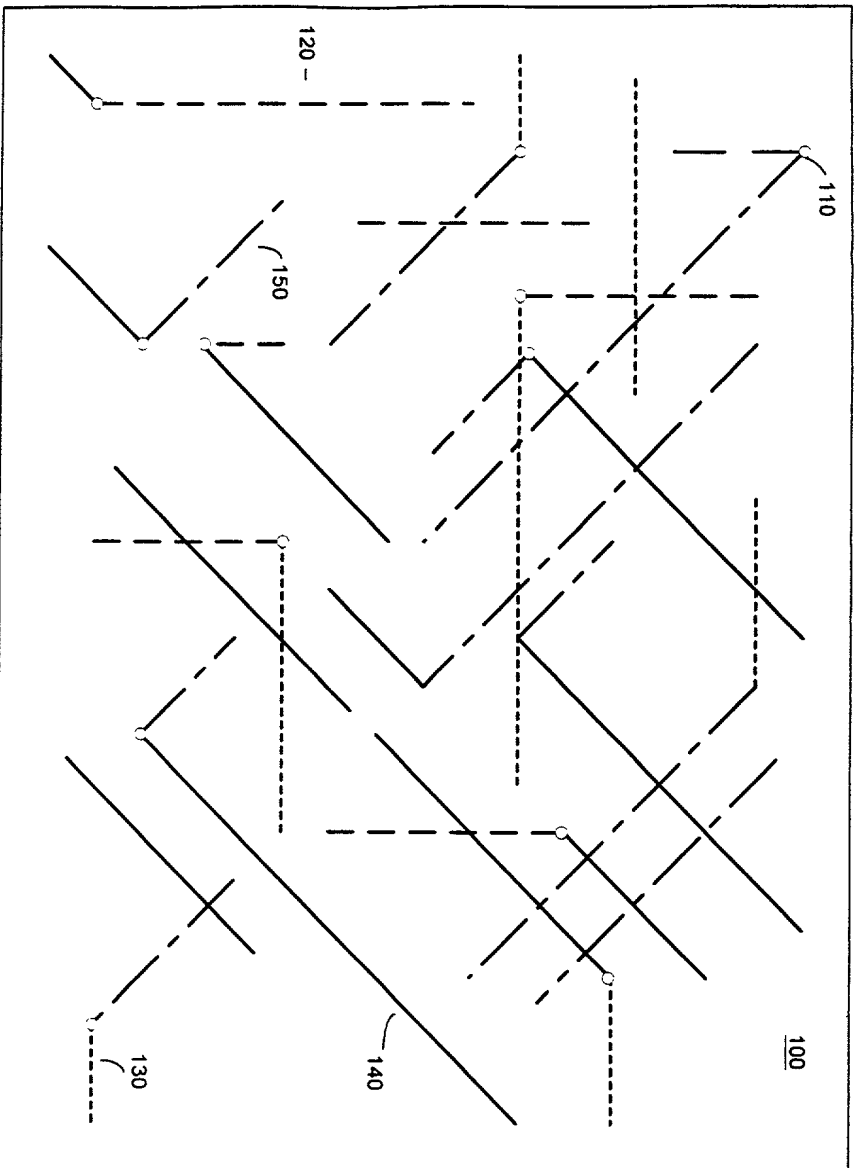


Figure 1a

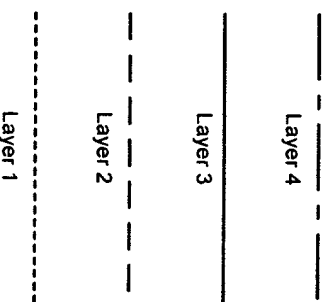


FIG. 1a is a top view of a semiconductor device 100. The device 100 includes a substrate 110, a gate stack 120, a source/drain region 130, and a contact 140. The contact 140 is formed over the source/drain region 130 and is electrically connected to the source/drain region 130. The contact 140 is formed over the gate stack 120 and is electrically connected to the gate stack 120. The contact 140 is formed over the substrate 110 and is electrically connected to the substrate 110.

IC (Top View)

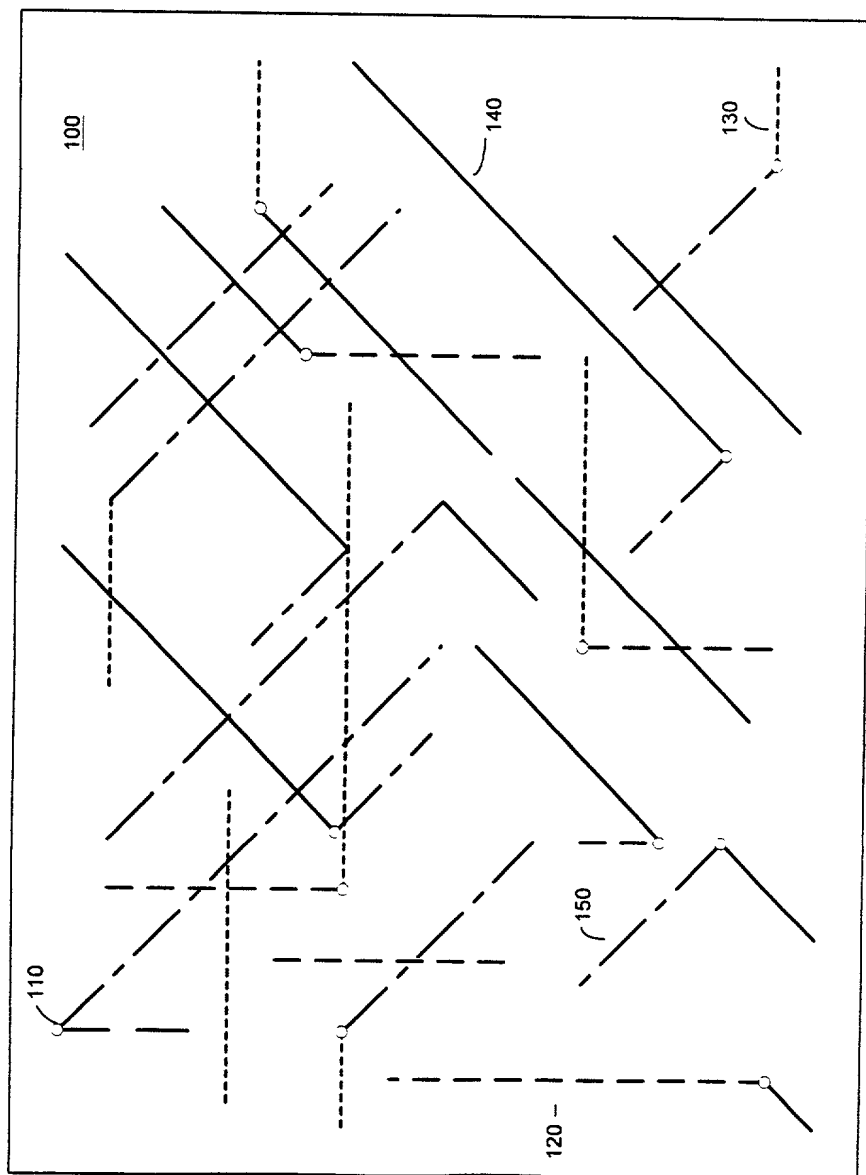


Figure 1a

IC (Top View)

155

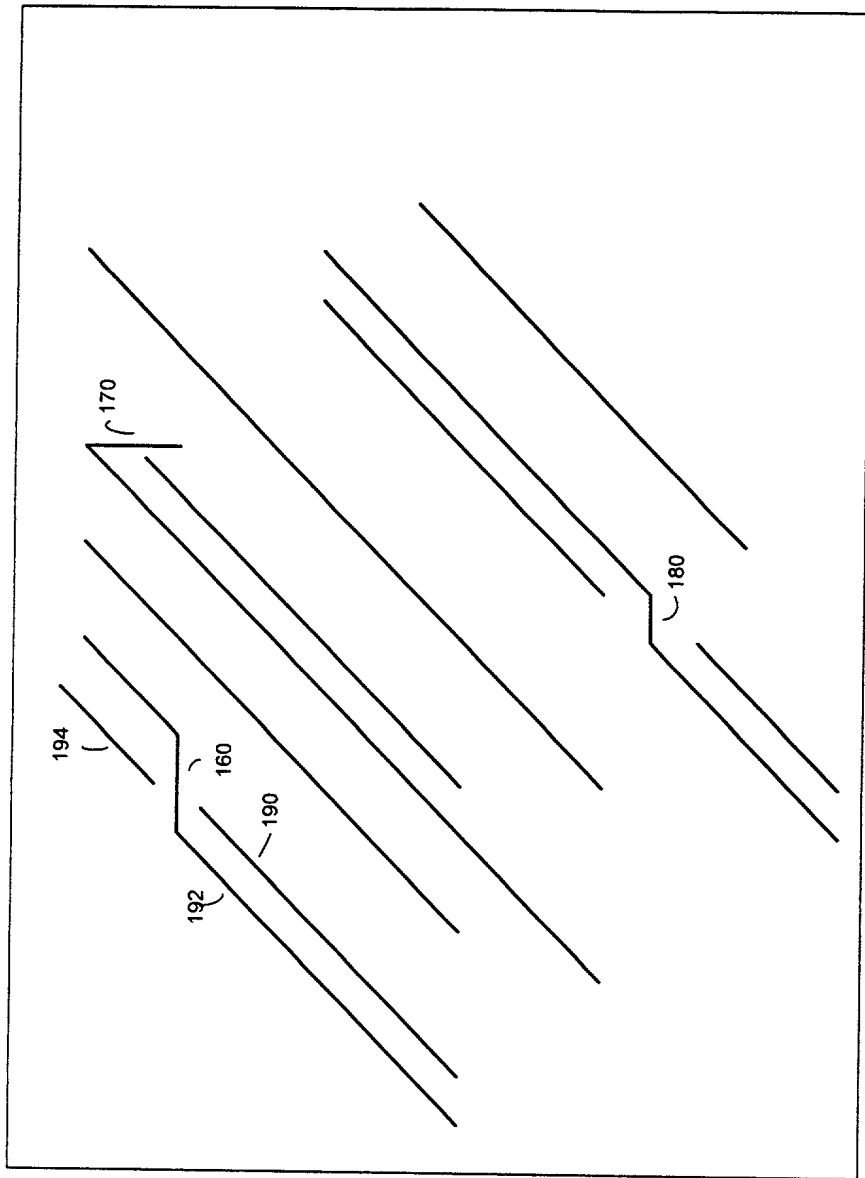
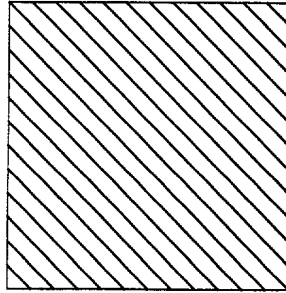
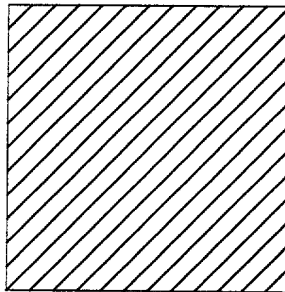


Figure 1b



Layer "n+1"

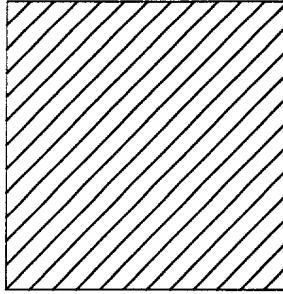
Octalinear (-45 Deg.)



Layer "n"

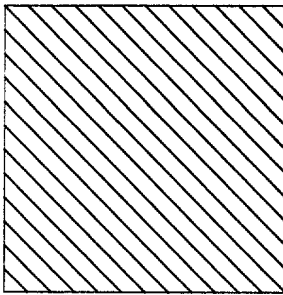
Octalinear (+45 Deg.)

Figure 2a



Layer "n+1"

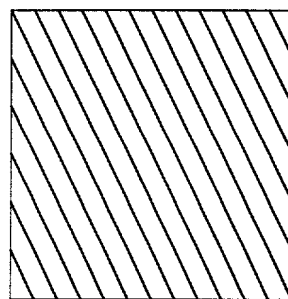
Octalinear (+45 Deg.)



Layer n

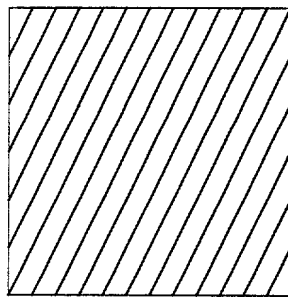
Octalinear (-45 Deg.)

Figure 2b



Layer "n+1"

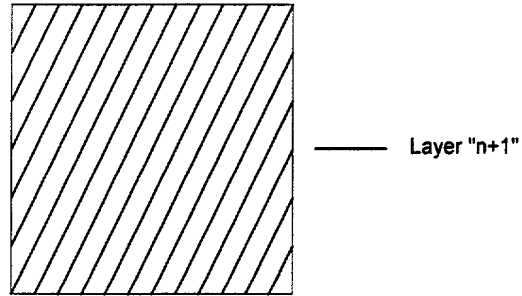
(-60 Degrees)



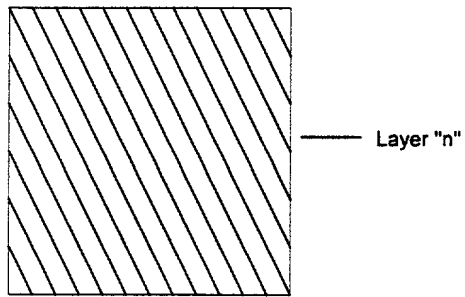
Layer "n"

(+60 Degrees)

Figure 3a



(+60 Degrees)



(-60 Degrees)

Figure 3b

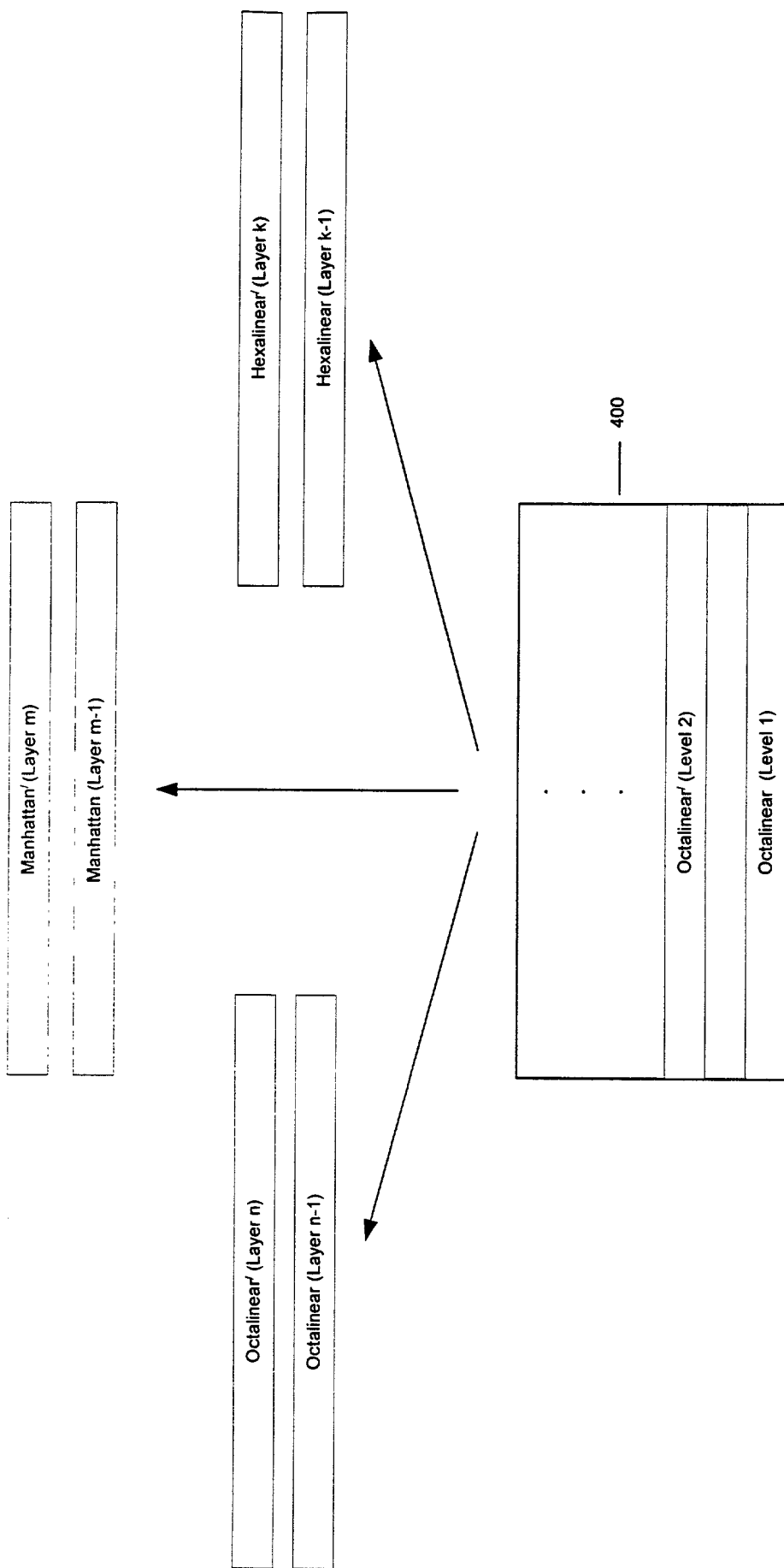


Figure 4a

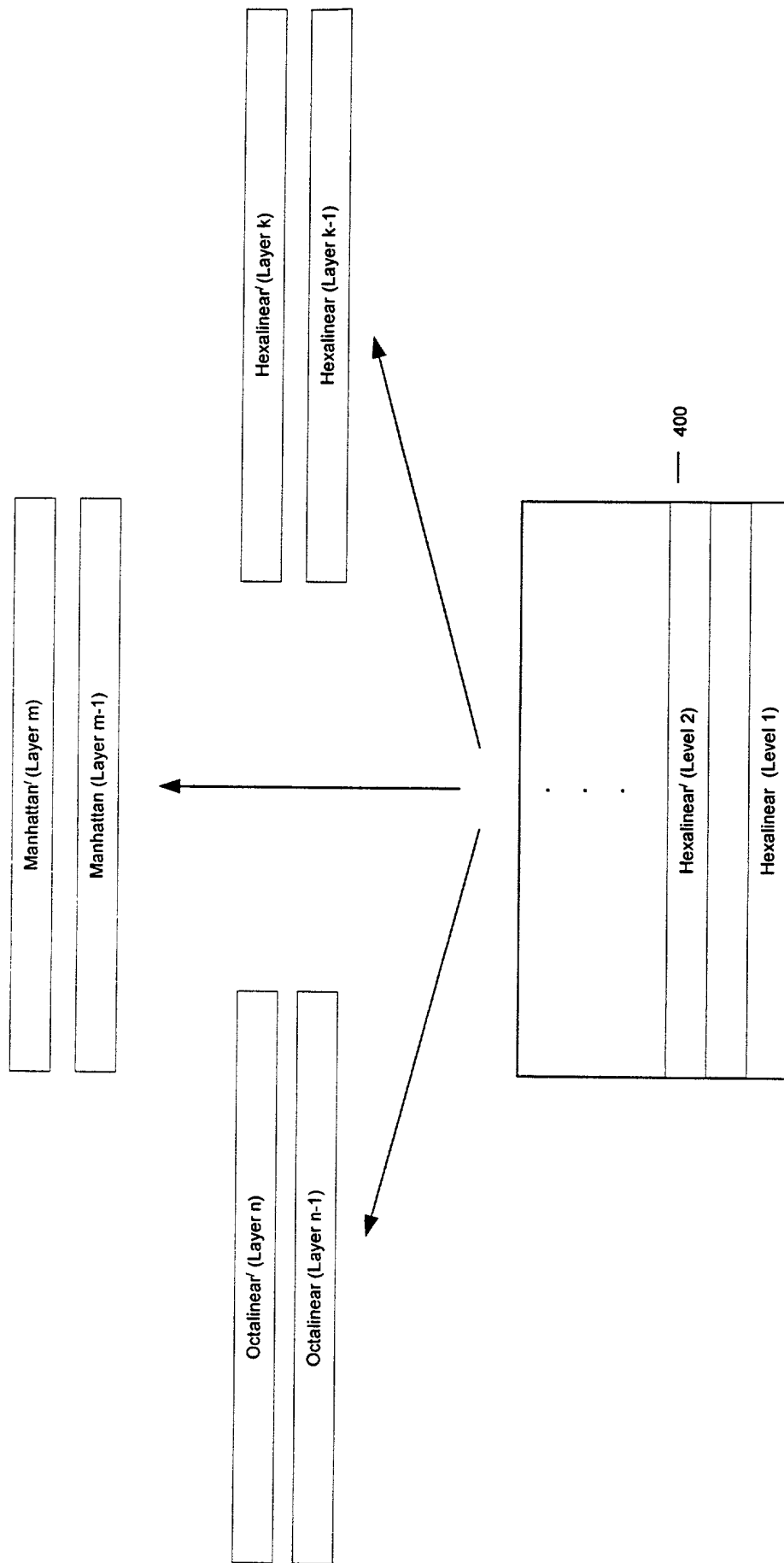


Figure 4b

500

Octalinear' Layer 5
Octalinear Layer 4
Manhattan Layer 3
Manhattan' Layer 2
Manhattan Layer 1

Figure 5a

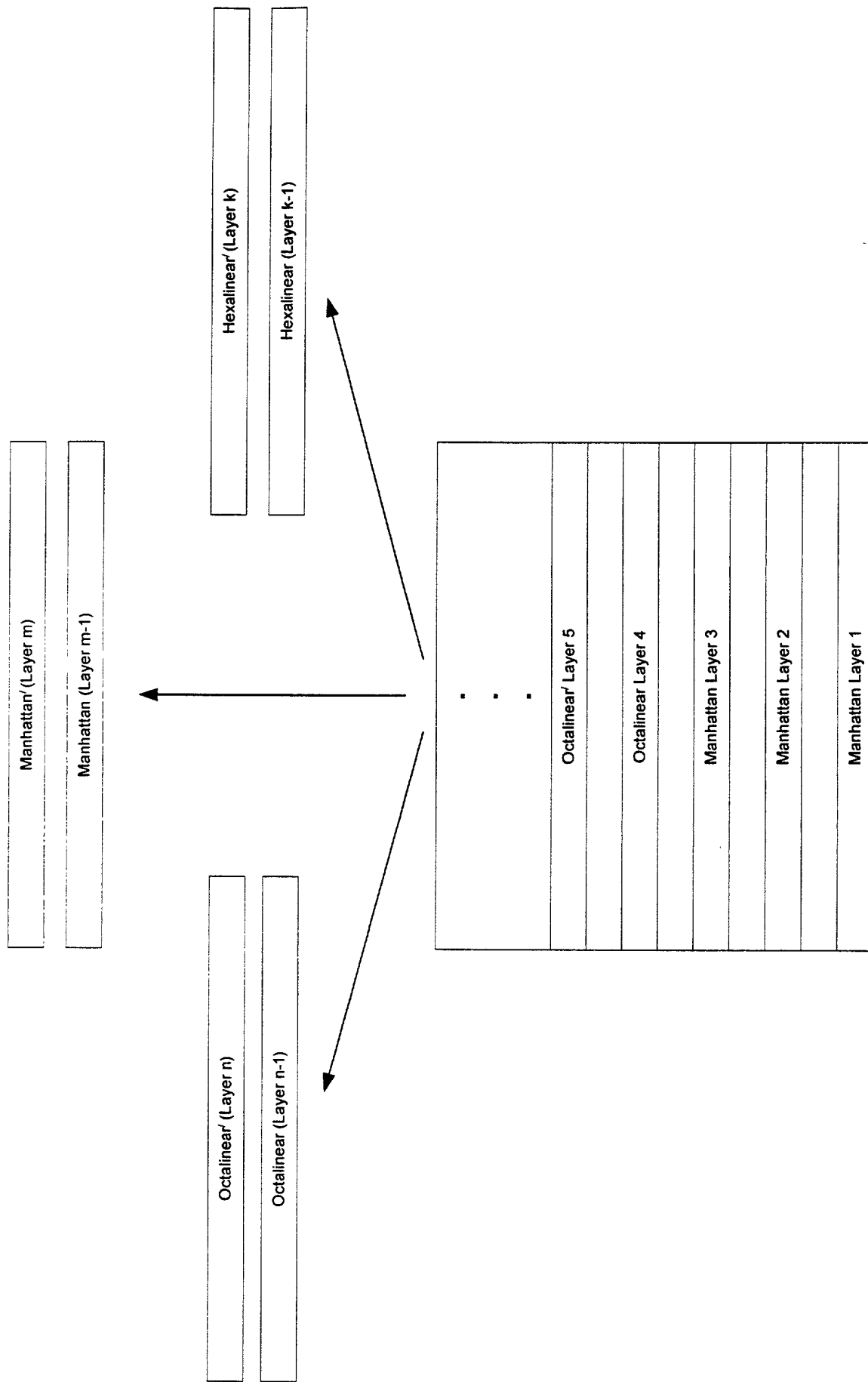
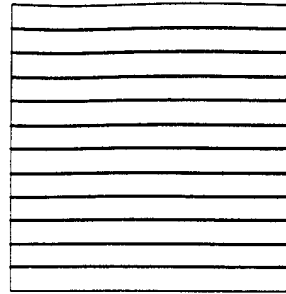
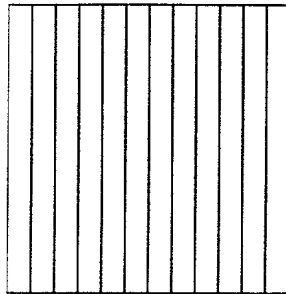


Figure 5b



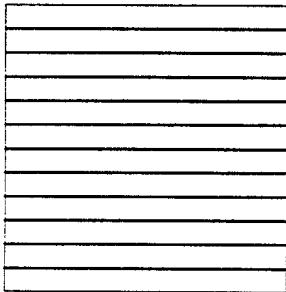
Layer 3

Horizont



Layer 2

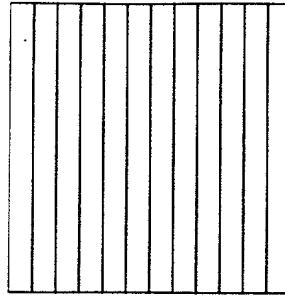
Vertical



Layer 1

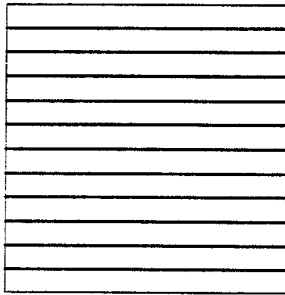
Horizont

Figure 6a



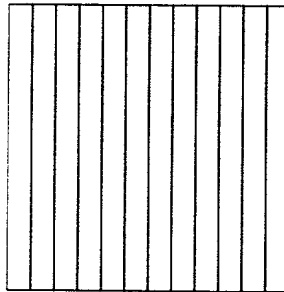
Layer 3

Vertical



Layer 2

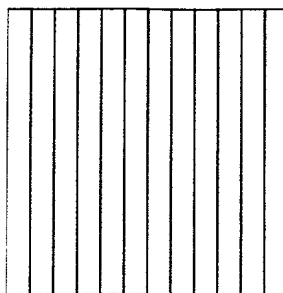
Horizont



Layer 1

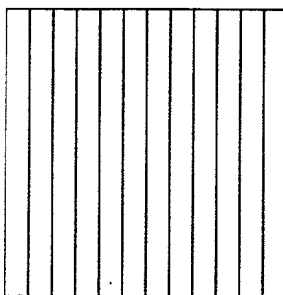
Vertical

Figure 6b



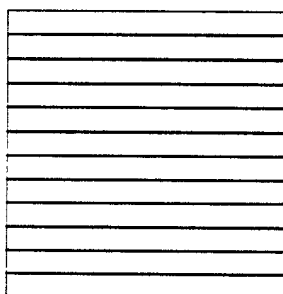
Layer 3

Vertical



Layer 2

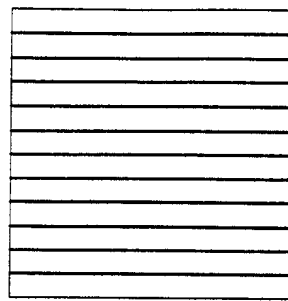
Vertical



Layer 1

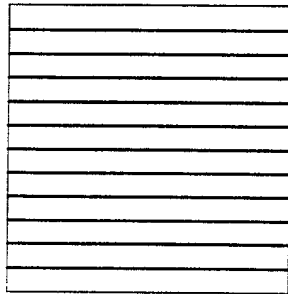
Horizont

Figure 6c



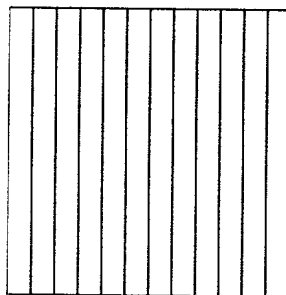
Layer 3

Horizont



Layer 2

Horizont



Layer 1

Vertical

Figure 6d

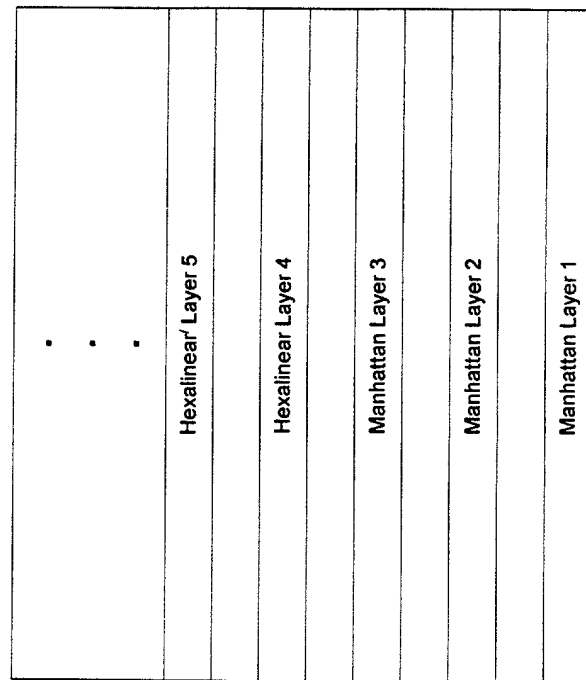
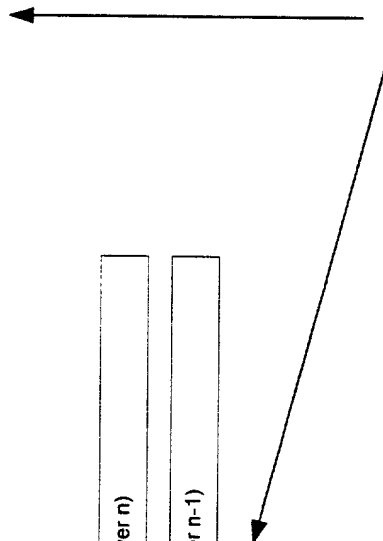
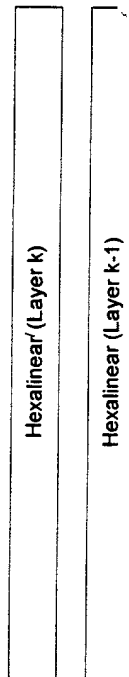
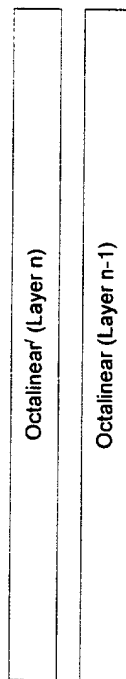
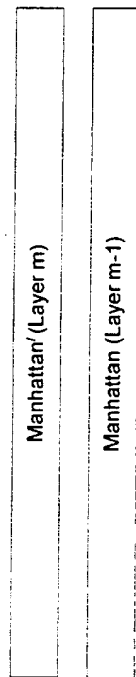


Figure 7

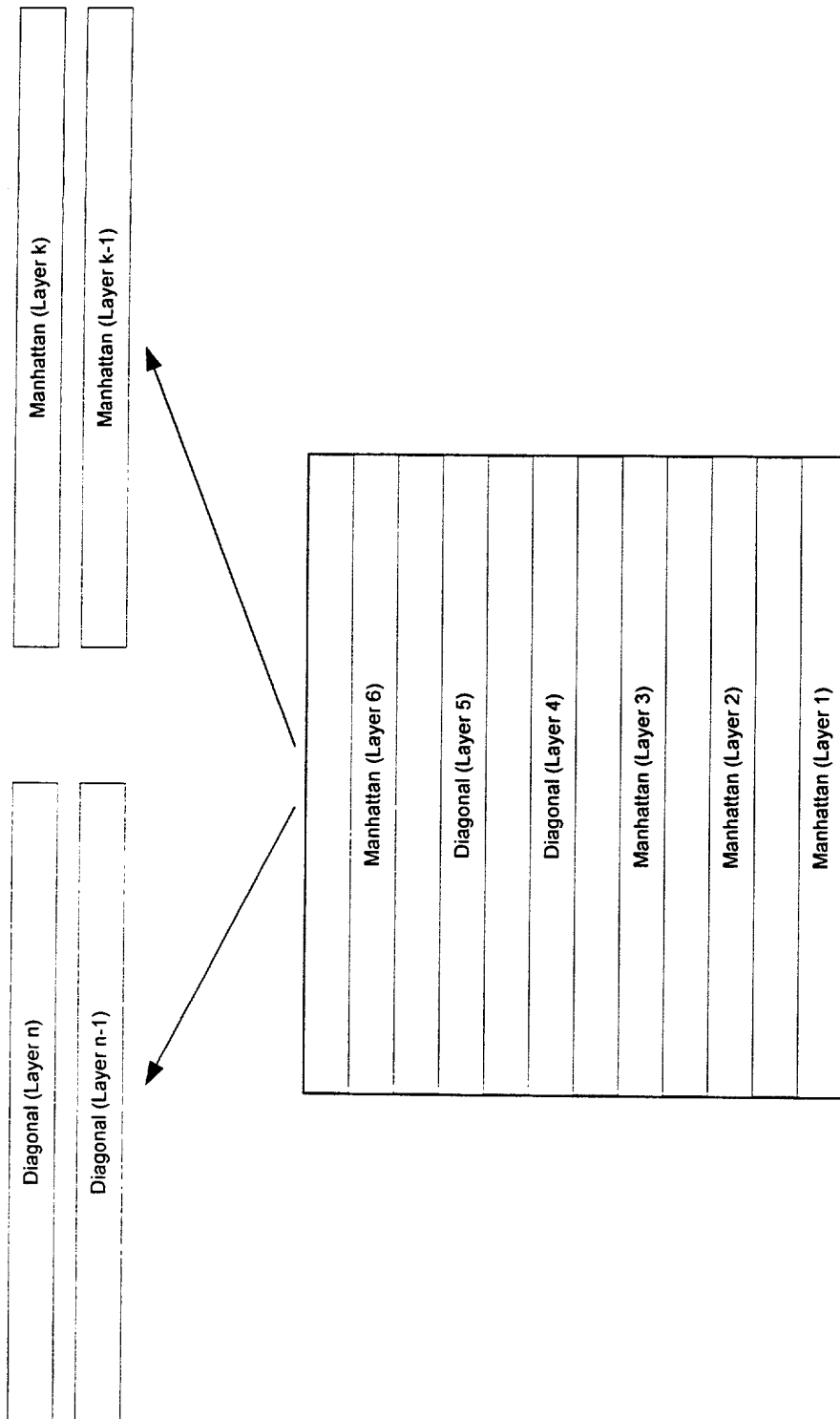


Figure 8

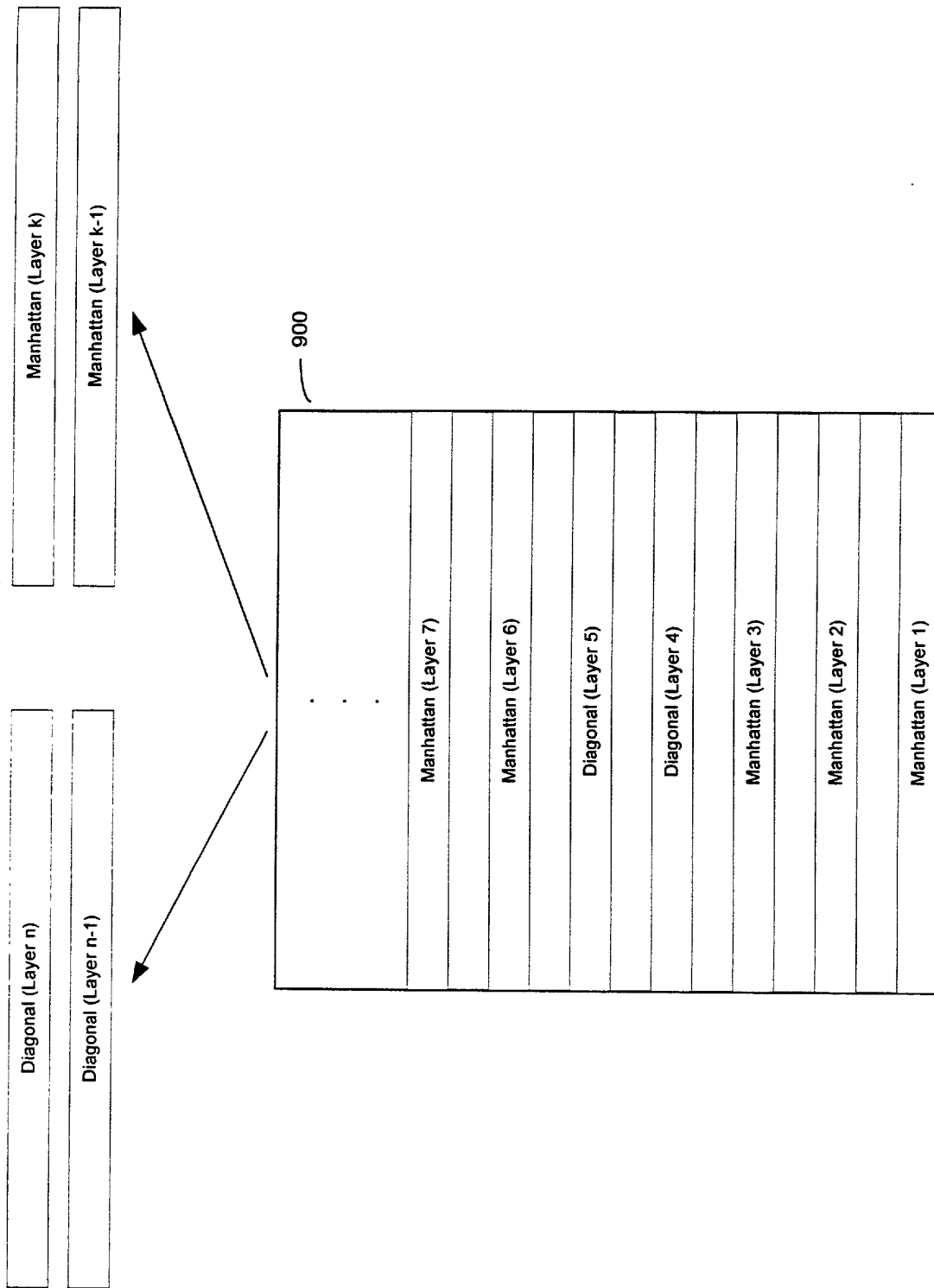


Figure 9

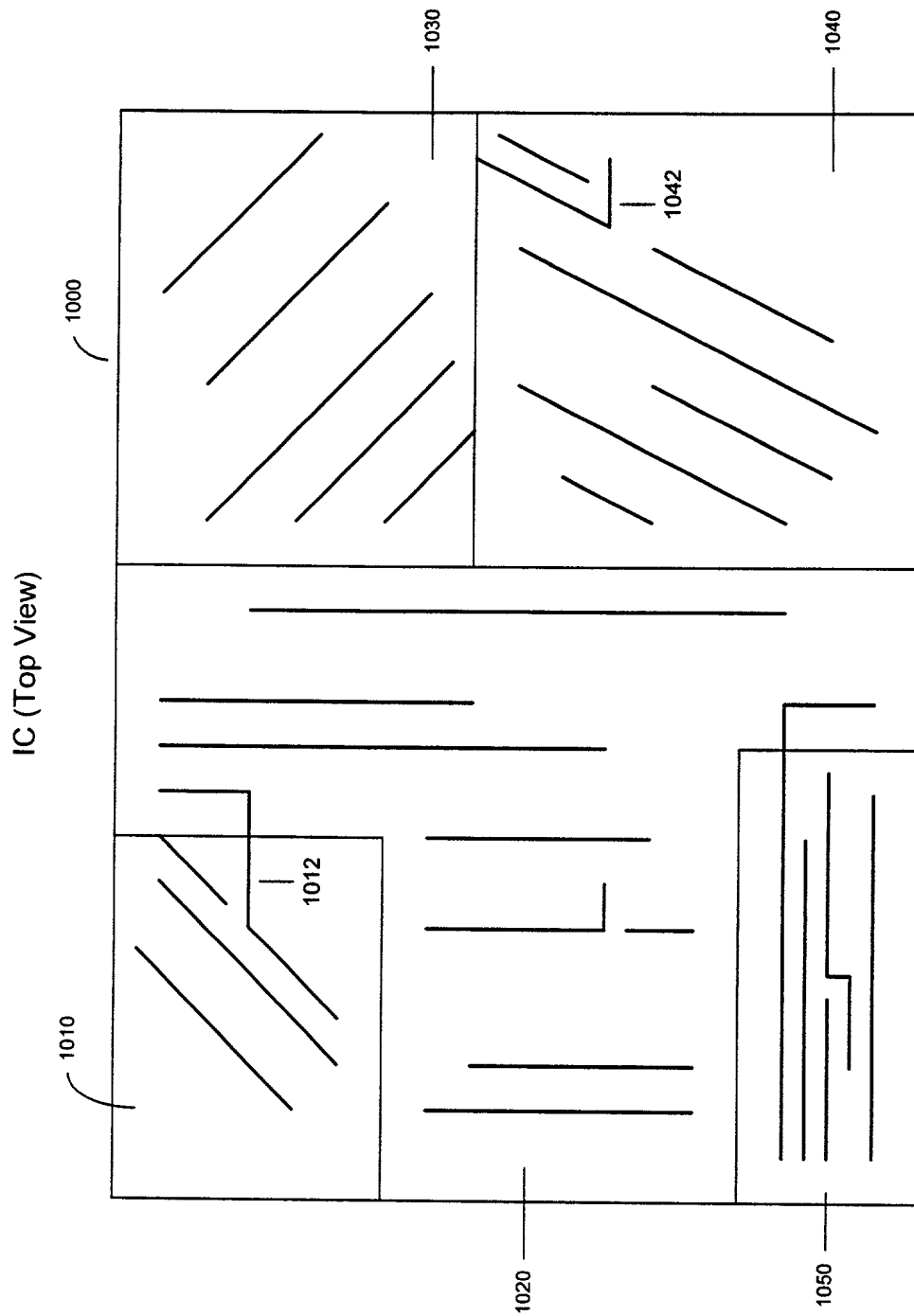


Figure 10

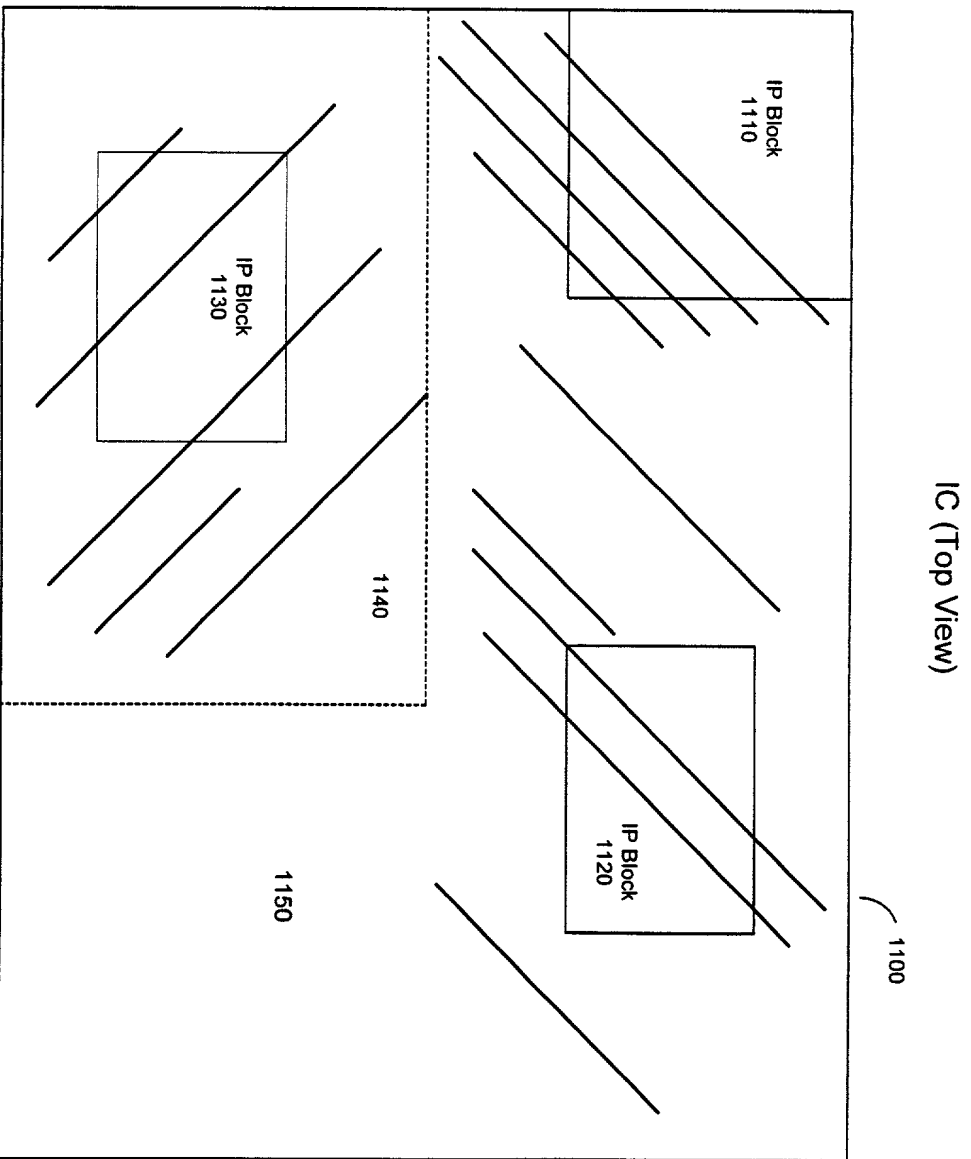


Figure 11

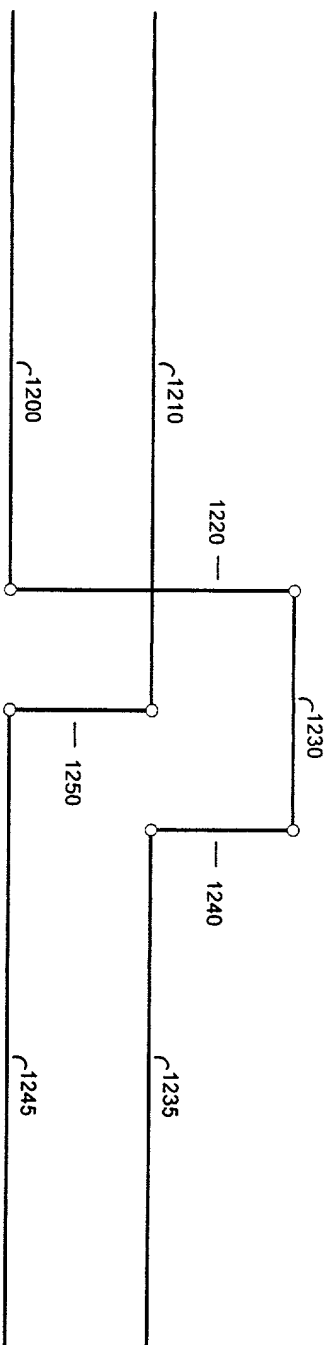


Figure 12a

Prior Art

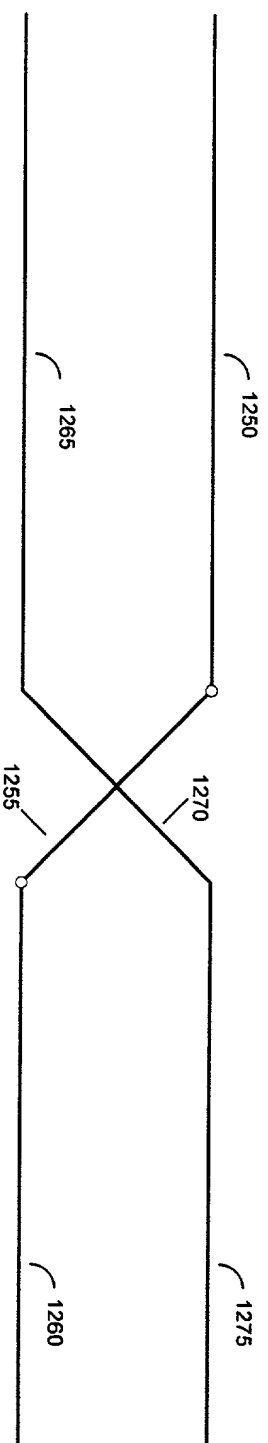
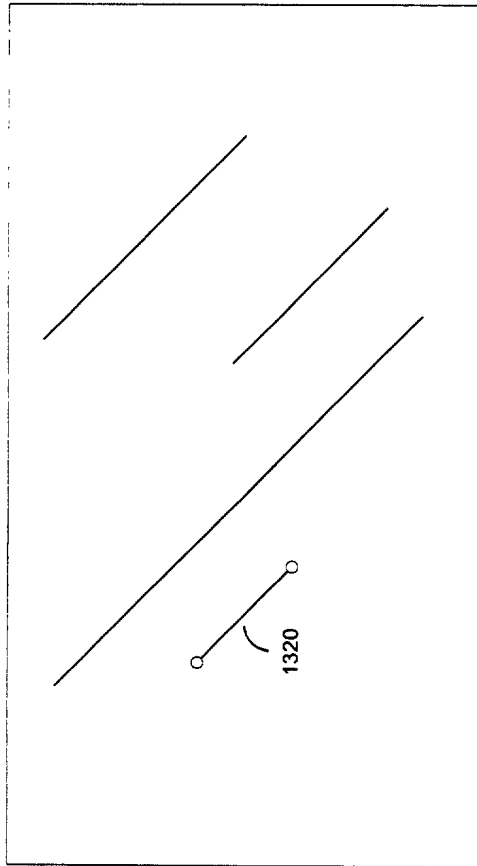
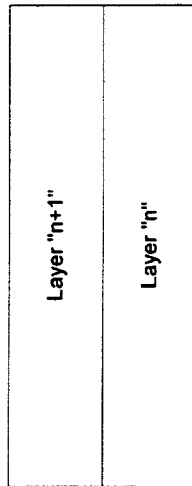


Figure 12b

Layer "n+1" (Top View)



Metal Layers Side View



Layer "n" (Top View)

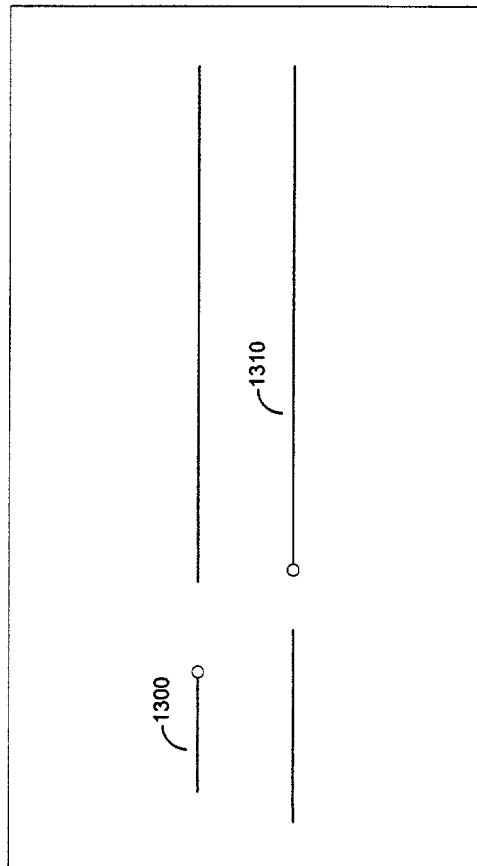


Figure 13

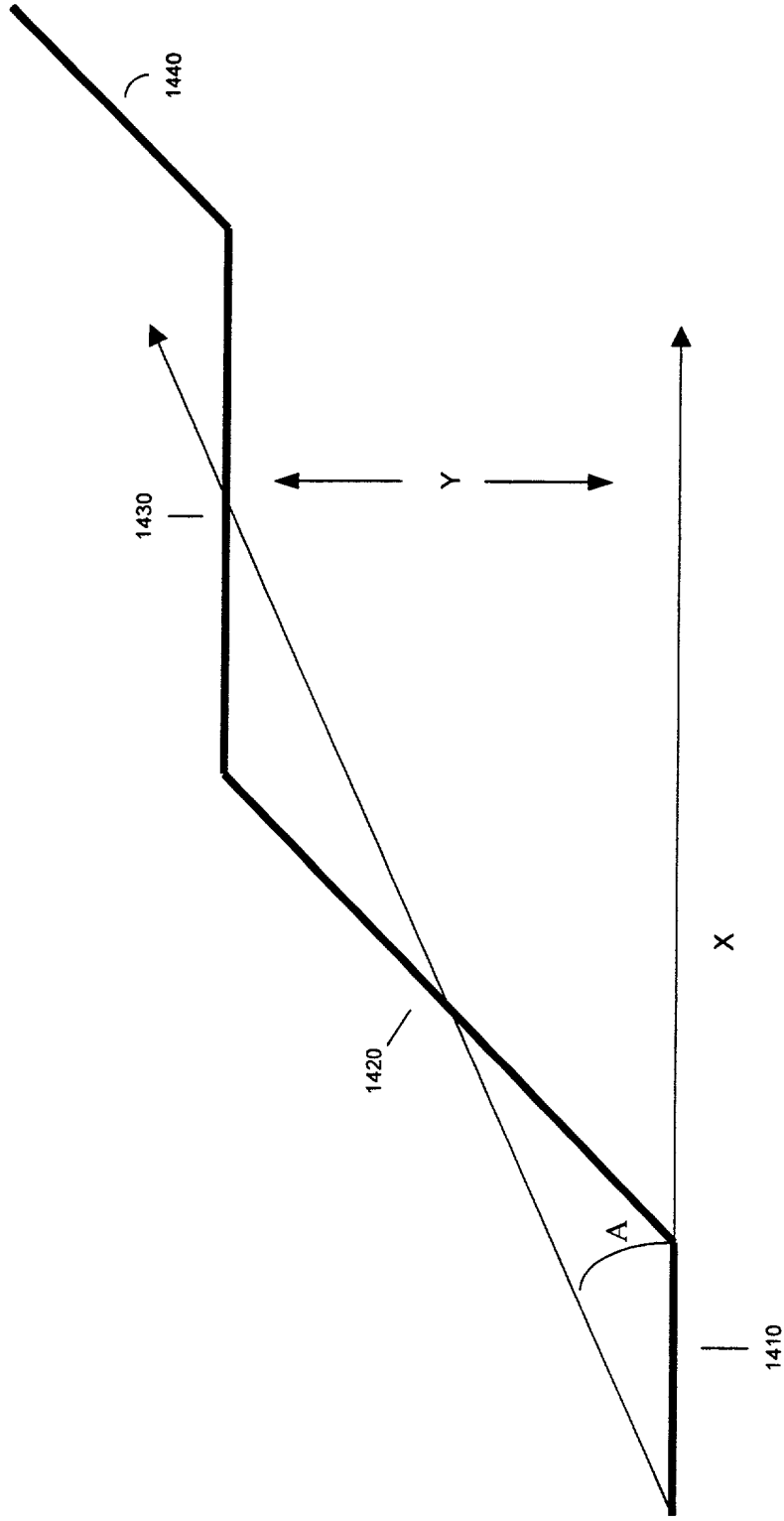


Figure 14



Figure 15

IC (Top View)

1600

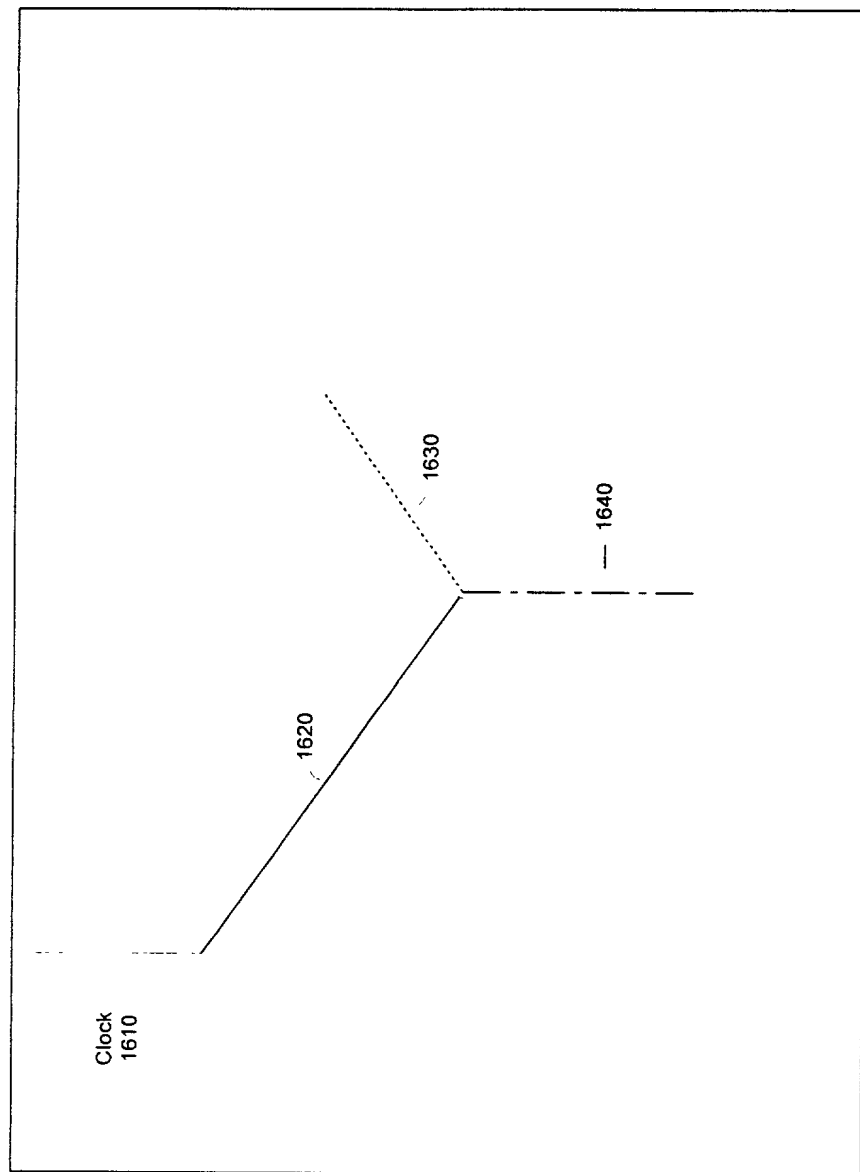


Figure 16